IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1-42. (Canceled).

43. (Currently Amended) A sound coding apparatus comprising:

a first coder ~~coding section~~ that performs weighting on an input signal to mask a spectrum of quantization distortion by a spectral envelope of the input signal, and thereafter encodes the input signal and obtains first coding information;

a decoder ~~decoding section~~ that decodes the first coding information outputted from the first coder and obtains a decoded signal;

a specificator ~~specifying section~~ that calculates an auditory masking threshold for a decoded spectrum that is obtained from the decoded signal outputted from the decoder, generates an estimated error spectrum by calculating the following equation using the decoded spectrum ~~flattening and attenuating the decoded spectrum using an exponential function whose exponent is a predefined constant and a multiplication with a predefined constant~~, compares the estimated error spectrum with the auditory masking threshold, and specifies a frequency region in the estimated error spectrum showing an amplitude equal to or greater than the auditory masking threshold;

a subtracter ~~subtracting section~~ that obtains a residual error signal of the input signal and the decoded signal; and

a second coder ~~coding section~~ that encodes the frequency region in the residual error signal outputted from the subtracter specified by the specificator ~~specifying section~~, and obtains second coding information, wherein:

the equation is expressed as:

$$E'(m) = a \cdot P(m)^{\gamma}$$

where

E'(m) is the estimated error spectrum,

P(m) is the decoded spectrum, and

a and γ are constants of 0 or above and less than 1.

44. (Currently Amended) The sound coding apparatus according to claim 43, wherein:

with respect to the input signal, the first coder ~~coding section~~ encodes a low frequency region; and

with respect to the residual signal, the second coder ~~coding section~~ encodes the frequency region in a low frequency region specified by the specificator ~~specifying section~~, and encodes a predetermined region in a high frequency region.

45. (Currently Amended) The sound coding apparatus according to claim 43, wherein the second coder ~~coding section~~ finds a difference from the auditory masking threshold value every frequency and determines a distribution of encoded bits based on the differences.

46. (Currently Amended) The sound coding apparatus according to claim 43, wherein the specificator ~~specifying section~~ normalizes the auditory masking threshold and specifies a

frequency region showing an amplitude equal to or greater than the normalized auditory masking threshold.

47. (Currently Amended) The sound coding apparatus according to claim 43, wherein:

the first coder ~~coding section~~ performs encoding using a code excited linear prediction method; and

the second coder ~~coding section~~ performs encoding using a modified discrete cosine transform method.

48. (Currently Amended) A sound signal decoding apparatus comprising:

a first decoder ~~decoding section~~ that decodes first coding information obtained in the sound coding apparatus of claim 43, and obtains a first decoded signal;

a specificator ~~specifying section~~ that calculates an auditory masking threshold for a decoded spectrum that is obtained from the first decoded signal outputted from the first decoder, generates an estimated error spectrum by calculating the following equation using the decoded spectrum ~~flattening and attenuating the decoded spectrum using an exponential function whose exponent is a predefined constant and a multiplication with a predefined constant~~, compares the estimated error spectrum with the auditory masking threshold, and specifies a frequency region in the estimated error spectrum showing an amplitude equal to or greater than the auditory masking threshold;

a second decoder ~~decoding section~~ that decodes the frequency region in second coding information obtained in the sound coding apparatus of claim 43 specified by the specificator ~~specifying section~~, and obtains a second decoded signal; and

an adder ~~adding section~~ that adds the first decoded signal outputted from the first decoder and the second decoded signal outputted from the second decoder and obtains a sound signal, wherein:

the equation is expressed as:

$$E'(m) = a \cdot P(m)^{\gamma}$$

where

E'(m) is the estimated error spectrum,

P(m) is the decoded spectrum, and

a and γ are constants of 0 or above and less than 1.

49. (Currently Amended) The sound decoding apparatus according to claim 48, wherein:

the first decoder ~~decoding section~~ decodes the first coding information and obtains the decoded signal of a low frequency region; and

with respect to the second coding information, in the low frequency region, the second decoder ~~decoding section~~ decodes the frequency region specified by the specificator ~~specifying section~~, and decodes a predetermined frequency region in a high frequency region.

50. (Currently Amended) The sound decoding apparatus according to claim 48, wherein the second decoder ~~decoding section~~ finds a difference from the auditory masking threshold value every frequency and determines a distribution of encoded bits based on the differences.

51. (Currently Amended) The sound decoding apparatus according to claim 48, wherein the specificator ~~specifying section~~ normalizes the auditory masking threshold and specifies a

frequency region showing an amplitude equal to or greater than the normalized auditory masking threshold.

52. (Currently Amended) The sound decoding apparatus according to claim 48, wherein:

the first decoder ~~coding section~~ performs decoding using a code excited linear prediction method; and

the second decoder ~~coding section~~ performs decoding using an inverse modified discrete cosine transform method.

53. (Previously Presented) A communication terminal apparatus comprising one of the sound coding apparatus of claim 43 and the sound decoding apparatus of claim 48.

54. (Previously Presented) A base station apparatus comprising one of the sound coding apparatus of claim 43 and the sound decoding apparatus of claim 48.

55. (Currently Amended) A sound coding method comprising:

a first coding step, in a first coder, of performing weighting on an input signal to mask a spectrum of quantization distortion by a spectral envelope of the input signal, and thereafter encoding the input signal and obtaining first coding information;

a decoding step, in a decoder, of decoding the first coding information and obtaining a decoded signal;

a specifying step, in a specificator, of calculating an auditory masking threshold for a decoded spectrum that is obtained from the decoded signal, generating an estimated error

spectrum by calculating the following equation using the decoded spectrum ~~flattening and attenuating the decoded spectrum using an exponential function whose exponent is a predefined constant and a multiplication with a predefined constant~~, comparing the estimated error spectrum with the auditory masking threshold, and specifying a frequency region in the estimated error spectrum showing an amplitude equal to or greater than the auditory masking threshold;

a subtracting step, in a subtracter, of obtaining a residual error signal of the input signal and the decoded signal; and

a second coding step, in a second coder, of encoding the frequency region in the residual error signal specified in the specifying step, and obtaining second coding information, wherein:

the equation is expressed as:

$$E'(m) = a \cdot P(m)^{\gamma}$$

where

E'(m) is the estimated error spectrum,

P(m) is the decoded spectrum, and

a and γ are constants of 0 or above and less than 1.

56. (Currently Amended) A sound decoding method comprising:

a first decoding step, in a first decoder, of decoding first coding information obtained by the sound coding method of claim 55, and obtaining a first decoded signal;

a specifying step, in a specificator, of calculating an auditory masking threshold for a decoded spectrum that is obtained from the first decoded signal, generating an estimated error spectrum by calculating the following equation using the decoded spectrum ~~flattening and attenuating the decoded spectrum using an exponential function whose exponent is a predefined~~

~~constant and a multiplication with a predefined constant~~, comparing the estimated error spectrum with the auditory masking threshold, and specifying a frequency region in the estimated error spectrum showing an amplitude equal to or greater than the auditory masking threshold;

a second decoding step, in a second decoder, of decoding the frequency region in second coding information obtained by the sound coding method of claim 55 specified in the specifying step, and obtaining a second decoded signal; and

an adding step, in an adder, of adding the first decoded signal and the second decoded signal and obtaining a sound signal, wherein:

the equation is expressed as:

$$E'(m) = a \cdot P(m)^{\gamma}$$

where

E'(m) is the estimated error spectrum,

P(m) is the decoded spectrum, and

a and γ are constants of 0 or above and less than 1.